GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA

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Bio-Technology
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Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether the Department of Biotechnology has funded a project to develop new varieties of cereals which use nitrogen more efficiently and is capable of better production and if so, the details thereof; and
(b) the steps taken by the Government to translate developmental biology research into innovation in nitrogen use by Indian farmers by connecting developmental research, crop breeding, agri-technology and extension work?

Answer

MINISTER OF STATE FOR SCIENCE & TECHNOLOGY AND EARTH SCIENCES

(SHRI Y. S. CHOWDARY)

a.& b. Yes Madam, the Department of Biotechnology in collaboration with BBSRC under the Newton Bhabha programme has funded four Virtual Joint Centres in Agricultural Nitrogen with an aim of optimizing usage of Agricultural Nitrogen and thus contributing to sustainable and eco-friendly agricultural practices. Optimized use of Nitrogen will contribute in enhancing the income of farmers by reducing cost inputs of fertilizers. The Virtual Joint Centre on Agricultural Nitrogen will address agronomic nitrogen use efficiency, biological nitrogen use efficiency and biological nitrogen fixation. The target cereal crops arerice, wheat, sorghum and millets (foxtail, pearl millet). Efficient Nitrogen utilizing varieties will be identified and optimal requirement of Nitrogen quantified and standardized for each variety.

Under the programme soil microbes which efficiently colonize cereals and increase bioavailability of Nitrogen to plants as well as with increased Nitrogen fixing in soil are also being tested and explored for use as bio-fertilizers.

Information on Nitrogen efficient varieties, bio-fertilizers and optimal Nitrogen requirements will be passed to farmers through extension networks which will lead to lower fertilizer/farm inputs and higher farm output in form of productivity/yield and will help in increased income of farmers.